CLAIMS

1.   A nonaqueous electrolyte secondary battery which comprises a positive electrode including particles of lithium-containing layered nickel oxide represented by a general formula $Li_a Ni_x Co_y Al_z M_b O_2$, wherein:

0.3$\leq$a$\leq$1.05, 0.7$\leq$x$\leq$0.87, 0.1$\leq$y$\leq$0.27, 0.03$\leq$z$\leq$0.1, 0$\leq$b$\leq$0.1; M is at least one selected from metallic elements except Ni, Co and Al, and

in binding energy of oxygen 1s spectrum when measuring said particles by XPS, if a peak area appearing at 529eV is set to D; a peak area appearing at 531eV is set to E; oxygen concentration ratio is set to D/(D+E); and oxygen concentration ratios at depths of L1 nm and L2 nm from the particle surface are respectively set to α_{L1} and α_{L2}, a combination of L1 and L2 in which $(\alpha_{L2} - \alpha_{L1})/\alpha_{L2} \leq 0.1$, L1$\leq$100, L2$\geq$500 is present.

2.   The nonaqueous electrolyte secondary battery according to claim 1, wherein said particles are crushed in an argon-gas atmosphere.

3.   The nonaqueous electrolyte secondary battery according to claim 1, wherein average particle size D_{50} of said particles is 4-20 μm.

4.   The nonaqueous electrolyte secondary battery according to claim 3, wherein the average particle size D_{50} of said particles is 9-10 μm.

5.   The nonaqueous electrolyte secondary battery according to claim 1, wherein BET specific surface area of said particles is 0.1-1 m^2/g.

6.   The nonaqueous electrolyte secondary battery according to claim 5, wherein the BET specific surface area of said particles is 0.3-0.4 m^2/g.

7.   The nonaqueous electrolyte secondary battery according to claim 1, wherein a combination of L1 and L2 in which $-0.1 \leq (\alpha_{L2} - \alpha_{L1})/\alpha_{L2} \leq 0.1$, $L1 \leq 100$, $L2 \geq 500$ is present.

8.   The nonaqueous electrolyte secondary battery according to claim 7, wherein the combination of L1 and L2 in which $0 \leq (\alpha_{L2} - \alpha_{L1})/\alpha_{L2} \leq 0.1$, $L1 \leq 100$, $L2 \geq 500$ is present.

9.   The nonaqueous electrolyte secondary battery according to claim 1, wherein $0.98 \leq x+y+z+b \leq 1.01$.

10.   The nonaqueous electrolyte secondary battery according to claim 1, wherein M is a transition metal element except Ni and Co.